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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Confirmation Number: 8173
Kevin STOTT	Attorney Docket: P67518US0
Serial No. 10/030,137	Group Art Unit: 1653
Filed: March 11, 2002	Examiner: Samuel Wei LIU

For: PEPTIDES CONTAINING N-SUBSTITUTED L-AMINO ACIDS FOR PREVENTING BETA-STRAND ASSOCIATION

PETITION TO WITHDRAW HOLDING OF ABANDONMENT UNDER 37 C.F.R. 1.181(a)

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notice of Abandonment mailed May 11, 2006 (copy enclosed), Applicant respectfully petitions to withdraw holding of abandonment under 37 C.F.R. 181(a) for the following reasons:

The Request for Correction of Drawings in the Notice of Allowability Was Wrong

After receiving the Notice of Allowability mailed December 1, 2005, the Applicant's representative noticed that the Examiner incorrectly requested for amendment of drawings submitted in a Supplemental Response on September 12, 2005. The drawing in the supplemental response was submitted for Examiner's reference so that the Examiner can easily understand the structure of the claimed peptide and the argument of the Applicant (see Exhibit 1: copy of the Supplemental Response and postcard, the second paragraph on page 12). It was NOT submitted as a replacement of the original drawings.

The Applicant's Representative Informed the Examiner of the Wrong Request and the Examiner Recognized that No Correction Was Necessary

After the incorrect request was found, the Applicant's representative, associate attorney Jiwen Chen (Reg. No. 58,140), contacted the Examiner Samuel W. LIU by phone (571-272-0949) on January 25, 2006 and informed the Examiner of the incorrect request. The Examiner recognized that the request was not corrected and indicated that no correction should be submitted (see Exhibit 2: copy of telephone entry record of Jiwen Chen).

The Issue Fee Was Properly Paid Without the Unnecessary Correction

Therefore, the issue fee of the application was paid on February 28, 2006 without the correction to the drawings (see Exhibit 3: copies of payment of issue fee and postcard), since the request was incorrect, the Examiner recognized that the request was not corrected and indicated that no correction should be submitted.

After the above Notice of Abandonment was received, the Applicant's representative was surprised to know that the present application had been abandoned and the holding of abandonment was based on failing to submit corrected drawings. The Applicant's representative, associate attorney Jiwen Chen, immediately contacted the Examiner Samuel W. LIU by phone (571-272-0949) on May 17, 2006 and May 22, 2006, respectively. The Examiner again indicated that he recognizes that the request was not corrected and no correction should be submitted, and recommended that a petition to withdraw holding of abandonment should be filed immediately (see Exhibit 4: copy of memo to file by Jiwen Chen).

According to 37 CFR 711.03, when advised of the abandonment of his or her application, applicant may either ask for reconsideration of such holding, if he or she disagrees with it on the basis that there is no abandonment in fact. It is respectfully submitted that the Applicant has not in fact abandoned the present application. Because the request for correction of drawings in the Notice of Allowability was wrong, the Applicant's representative timely contacted the Examiner

about the wrong request, and the Examiner recognized the wrong request and indicated that the correction is unnecessary, the Applicant respectfully requests that Notice of Abandonment be withdrawn.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By _____
John C. Holman
Registration No. 22,769

Date: May 25, 2006
(202) 638-6666
400 Seventh Street, N.W.
Washington, D.C. 20004
Atty. Dkt. No.: P67518US0

Enclosures:

Copy of Notice of Abandonment mailed May 11, 2006
Exhibit 1: copy of the Supplemental Response and postcard
Exhibit 2: copy of telephone entry record of Jiwen Chen
Exhibit 3: copies of payment of issue fee and postcard
Exhibit 4: copy of memo to file by Jiwen Chen

IC 3/1600 EMO P67518USO

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,137	03/11/2002	Kelvin Stott	P67518USO	8173

136 7590 05/11/2006

JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER	
LIU, SAMUEL W	

ART UNIT	PAPER NUMBER
1653	

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Abandonment

Application No.	Applicant(s)	
10/030,137	STOTT	
Examiner	**Art Unit**	
LIU	1653	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address–

This application is abandoned in view of:

1. ☐ Applicant's failure to timely file a proper reply to the Office letter mailed on _____.
   (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
   (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
   (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
   (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
   (d) ☐ No reply has been received.

2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
   (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
   (b) ☐ The submitted fee of $_____ is insufficient. A balance of $_____ is due.
   The issue fee required by 37 CFR 1.18 is $_____. The publication fee, if required by 37 CFR 1.18(d), is $_____.
   (c) ☐ The issue fee and publication fee, if applicable, has not been received.

3. ☒ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
   (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
   (b) ☒ No corrected drawings have been received.

4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.

5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.

6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.

7. ☐ The reason(s) below:

lgd

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

Attachment to Notice of Abandonment

For questions concerning the notice contact Office of Patent Publication Image Assistance Center: 888-786-0101.

Information is also available on the USPTO Internet web site:
http://www.uspto.gov/web/patents/pubs/abandonnotice.html

Respond to the Notice of Abandonment by one of the following:

1. **Petition To Withdraw Holding of Abandonment (See MPEP 711.03(c) I and 37 CFR § 1.181) No fee required**

Where an applicant contends that the application is not in fact abandoned (e.g., a reply was in fact filed), a petition under 37 CFR § 1.181(a) requesting withdrawal of the holding of abandonment is the appropriate course of action. Any petition under 37 CFR § 1.181 to withdraw the holding of abandonment not filed within 2 months of the mail date of a Notice of Abandonment may be dismissed as untimely under 37 CFR § 1.181(f). In order for a petition to be granted, the evidence must be sufficient according to 37 CFR § 1.8(b) Certificate of Mailing 37 CFR § 1.10 "Express Mail" mailing or MPEP 503 Postcard Receipt as Prima Facie Evidence. The petition should be addressed as follows:
By mail: Mail Stop: Issue Fee, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450
By facsimile: 703-872-9306

2. **Petition To Withdraw Holding Of Abandonment Based On Failure To Receive Office Action (MPEP 711.03(c) II and 37 CFR § 1.181). No fee required**

Where an applicant contends that the original Notice of Allowance and Fee(s) Due was never received, if adequately supported, the Office may grant the petition and remail the Office action. The showing required establishing non-receipt of an Office communication must include a statement from the practitioner stating that the Office communication was not received and attesting to the fact that a search of the file jacket and docket records indicates that the Office communication was not received. A copy of the docket record where the nonreceived Office would have been entered had it been received and docketed must be attached to and referenced in practitioner's statement.
Petition should be addressed to the Technology Center handling the application as follows:
By mail: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450
By facsimile: 703-872-9306

3. **Petition To Revive An Abandoned Application (See MPEP 711.03(c) III)**

Where there is no dispute as to whether an application is abandoned (e.g., the applicant's contentions merely involve the cause of abandonment) a petition under 37 CFR § 1.137 (a) or (b) (accompanied by the appropriate petition fee) is necessary to revive the abandoned application. The text of these rules is available on the USPTO Internet Web site. Forms for these petitions, "Petition For Revival Of An Application For Patent Abandoned Unavoidably Under 37 CFR § 1.137(a)," PTO/SB/61, and "Petition For Revival Of An Application For Patent Abandoned Unintentionally Under 37 CFR 1.137(b)," PTO/SB/64, are available in the forms section of the USPTO website: http://www.uspto.gov.

Petitions under 37 CFR § 1.137 should be addressed to the Office of Petitions as follows:
By mail: Mail Stop Petition, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450
By facsimile: 703-872-9306

Note: Abandonment takes place by operation of law for failure to reply to an Office action or timely pay the issue fee, not by operation of the mailing of a Notice of Abandonment

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Kevin STOTT

Attorney Docket: P67518US0

Serial No.: 10/030,137

Group Art Unit: 1653

Filing Date: March 11, 2002

Examiner: Samuel Wei LIU

For: PEPTIDES CONTAINING N-SUBSTITUTED L-AMINO ACIDS FOR PREVENTING BETA-STRAND ASSOCIATION

TRANSMITTAL

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is a Supplemental Amendment and Response to the non-final office action under 37 C.F.R. 1.111 in the above captioned application.

XX Small Entity status of this application under 37 C.F.R. 1.9 and 1.27 has been established by a verified statement previously submitted.

The fee has been calculated as shown below:

Claims Remaining After Amendment	Highest Number Previously Paid For	Present Extra	Small Entity Rate Addit. Fee (or)	Other Than A Small Entity Rate Addit. Fee
Total 31	- 45	= 0	x25 = $	x 50 = $
Indep. 2	- 3	= 0	x100= $	x 200= $
Total Additional Fee			$	$

____ Credit Card Payment Form in the amount of $ is attached.

XX If a Petition for Extension of Time is necessary and the Petition and/or the check is not enclosed, this will act as the Petition and applicant herewith petitions the Commissioner to extend the time for response and charge any fees necessary under 37 CFR 1.17 (a)(1)-(5) to Deposit Account No. 06-1358. The Commissioner is also authorized to charge payment of any other additional fees associated with this communication or credit any overpayment to Deposit Account No. 06-1358. A duplicate copy of this sheet is attached.

Dated: September 12, 2005
400 Seventh Street, N. W.
Washington, D.C. 20004-2201
P67518US0

JACOBSON HOLMAN, PLLC

By: Reg # 26424

John C. Holman
Reg. No. 22,769

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Confirmation Number: 8173
Kevin STOTT	Attorney Docket: P67518US0
Serial No. 10/030,137	Group Art Unit: 1653
Filed: March 11, 2002	Examiner: Samuel Wei LIU

For: PEPTIDES CONTAINING N-SUBSTITUTED L-AMINO ACIDS FOR PREVENTING BETA-STRAND ASSOCIATION

SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. 1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In further response to the Official Action mailed March 7, 2005 and supplement to the amendment filed on August 5, 2005, please further amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 12 of this paper.

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A ~~chemical compound or composition comprising a~~ peptide[, comprising] ~~, wherein~~:

(a) said peptide comprises a β-strand-forming section, said section ~~of peptide~~ consisting of four to sixteen consecutive α-L-amino acid residues and encompassing at least 50% of the length of said peptide, none of the α-L-amino acid residues within the β-strand-forming section ~~of peptide~~ being proline, except at very ends of the β-strand-forming section ~~of peptide~~;

(b) each of the consecutive α-L-amino acid residues in the β-strand-forming section ~~of the peptide~~ has a side chain;

(c) said β-strand-forming section ~~of peptide~~ forms a β-strand having a peptide backbone which takes on the form of an extended ribbon having two edges, a first edge which associates with a target β-strand formed by a separate peptide-containing molecule and a second edge, such that the NH and CO components of successive α-L-amino acid residues lie along ~~either~~ the first edge ~~or~~ [and] the second edge of the ribbon, the first edge and second edge corresponding to two opposite edges of the plane of the ribbon, and the side chains of the consecutive α-L-amino acid residues being alternatively above or below the plane of the ribbon ~~peptide planes of the peptide backbone~~;

(d) at least one of the Nα-atoms within the peptide backbone of the β-strand is Nα-substituted with an Nα-substituent, such that one or more Nα-substituent lie along only the second edge and sterically hinder the association of the second edge with another β-strand; and

(e) the first edge remains free of Nα-substituents, and is not prevented from associating with the target β-strand formed by a separate peptide-containing molecule.

2. (currently amended) The chemical compound or composition according to claim 1, wherein, when there are two or more successive Nα-substituted amino acid residues, no two successive Nα-substituted amino acid residues in the β-strand-forming section ~~of peptide~~ are separated by more than 3 consecutive Nα-unsubstituted amino acid residues.

3. (currently amended) The chemical compound or composition according to claim 1 wherein, when there are two or more successive Nα-substituted amino acid residues, successive Nα-substituted α-L-amino acid residues in the β-strand-forming section ~~of peptide~~ are separated from each other by single Nα-unsubstituted α-L-amino acid residues, such that the β-strand-forming section ~~of peptide~~ comprises an alternating sequence of Nα-substituted and Nα-unsubstituted α-L-amino-acid residues.

4. (previously presented) The chemical compound or composition according to claim 1 wherein the Nα-substituent of each Nα-substituted α-L-amino acid residue in the β-strand-forming section ~~of peptide~~ sterically allows or promotes the β-strand-forming section ~~of peptide~~ to form a β-strand, and sterically hinders the association of said second edge of that β-strand with any other β-strand.

5. (currently amended) The chemical compound or composition according to claim 4, wherein the Nα-substituent of each Nα-substituted α-L-amino acid residue in the β-strand-forming section ~~of peptide~~ sterically hinders the action of proteolytic enzymes on the β-strand-forming section ~~of peptide~~.

6. (currently amended) The chemical compound or composition according to claim 4, wherein the Nα-substituent of each Nα-

substituted α-L-amino acid residue in the β-strand-forming section ~~of peptide~~ is selected from the group consisting of:

a fluorine atom or an OH group;

a group that is connected to the Nα atom by an oxygen atom within said group;

a group that is connected to the Nα atom by a CH2 subgroup within said group;

a methyl or ethyl group, or some other alkyl or aliphatic group;

a substituted or unsubstituted benzyl group, or some other arylmethyl group;

an acetylated or acylated 2-hydroxy-4-methoxybenzyl (AcHmb) group; and

an acylated or unacylated 2-hydroxybenzyl (AcHb/Hb) group.

7. (currently amended) The chemical compound or composition according to claim 1, wherein the side chain of each α-L-amino acid residue in the β-strand-forming section ~~of peptide~~ allows or promotes the β-strand forming section ~~of peptide~~ to form a β-strand.

8. (currently amended) The chemical compound or composition according to claim 7, wherein the side chain of one or more α-L-amino acid residues in the β-strand forming section ~~of peptide~~ is that of an amino-acid residue having a β-sheet propensity of greater than 1.00.

9. (currently amended) The chemical compound or composition according to claim 7, wherein the side chain of one or more α-L-amino acid residues in the β-strand forming section ~~of peptide~~ is selected from the group consisting of:

an atom or group that allows or promotes the β-strand-forming section ~~of peptide~~ to associate as a β-strand with the target β-strand and thereby form a stable β-sheet complex; and

an atom or group that forms a hydrophobic or electrostatic interaction, hydrogen bond, or other favorable non-covalent interaction with the neighboring side chain of the target β-strand in a β-sheet complex comprising the target β-strand and the β-strand forming section ~~of peptide~~.

10. (currently amended) The chemical compound or composition according to claim 7, wherein the side chain of one or more α-L-amino acid residues in the β-strand forming section ~~of peptide~~ is selected from the group consisting of:

a hydrophobic group, or a group that has a considerable hydrophobic portion;

a branched or unbranched alkyl or aliphatic group;

a group that is branched at its connecting β-carbon atom;

an aromatic group;

an acidic or basic group; and

an amide- or hydroxyl-containing group.

11. (currently amended) The chemical compound or composition according to claim 1, wherein the side chain of one or more α-L-amino acid residues in the β-strand-forming section ~~of peptide~~ hinders the stacking of β-sheets.

12. (currently amended) The chemical compound or composition according to claim 11, wherein the side chain of one or more α-L-amino acid residues in the β-strand-forming section ~~of peptide~~ extends beyond the neighboring side chains in the β-strand.

13. (currently amended) The chemical compound or composition according to claim 1, wherein the side chain of one or more α-L-amino acid residues in the β-strand-forming section ~~of peptide~~ allows the compound or composition to be traced or detected.

14. (currently amended) The chemical compound or composition according to claim 13, wherein the side chain of one or more α-L-amino acid residues in the β-strand-forming section ~~of peptide~~ is selected from the group consisting of:

an atom or group that contains a radioactive or magnetically active nucleus;

that of phenylalanine or tyrosine with one or more radioactive or magnetically active iodine or other halogen atoms substituted onto the aromatic ring;

a fluorescent, colored, or other spectroscopically detectable group;

a group which contains an unpaired electron and thereby acts as a spin label;

a group which contains the 2,2,5,5-tetramethyl-1-pyrrolidinyloxy (PROXYL) group; and

a group which contains the 2,2,6,6-tetramethyl-1-piperidinyloxy (TEMPO) group.

15. (currently amended) The chemical compound or composition according to claim 1, wherein the side chain of one or more α-L-amino acid residues in the β-strand-forming section ~~of peptide~~ is selected from the group consisting of the side chain of:

any naturally occurring α-L-amino acid or synthetic derivative thereof; alanine; serine; cysteine; threonine; valine; leucine; isoleucine; methionine; phenylalanine; tyrosine; tryptophan; glutamine; asparagine; glutamate; aspartate; histidine; lysine; arginine; ~~and~~ *tert*-leucine ~~or~~ and β-hydroxyvaline.

16. (currently amended) The chemical compound or composition according to claim 1 wherein the target β-strand is formed by the Alzheimer's Aβ peptide, and the β-strand-forming section ~~of peptide~~ binds specifically as a β-strand to part or all of the KLVFFAE sequence (SEQ ID NO:3) within the target β-strand in the parallel orientation, thereby forming a parallel β-sheet complex wherein consecutive residues of the β-strand-forming section ~~of peptide~~ lie directly opposite consecutive residues of ~~the KLVFFAE sequence~~ Seq ID NO:3 in the same order.

17. (currently amended) The chemical compound or composition according to claim 1 wherein the target β-strand is formed by the Alzheimer's Aβ peptide, and the β-strand-forming section ~~of peptide~~ binds specifically as a β-strand to part or all of the KLVFFAE

sequence (SEQ ID NO:3) within the target β-strand in the antiparallel orientation, thereby forming an antiparallel β-sheet complex wherein consecutive residues of the β-strand-forming section ~~of peptide~~ lie directly opposite consecutive residues of ~~the KLVFFAE sequence~~ Seq ID. NO:3 in reverse order.

18. (currently amended) The chemical compound or composition as claimed in claim 17 wherein the β-strand-forming section ~~of peptide~~ comprises at least a four-residue segment of the amino acid sequence aa1-aa2-aa3-aa4-aa5-aa6-aa7, or a mimic thereof, where:

aa1 is α-L-lysine or α-L-arginine;

aa2 is α-L-leucine or α-L-lysine, or an Nα-substituted form thereof;

aa3 is α-L-valine or α-L-isoleucine;

aa4 is α-L-phenylalanine or α-L-tyrosine, or an Nα-substituted form thereof;

aa5 is α-L-phenylalanine or α-L-tyrosine;

aa6 is α-L-alanine, α-L-threonine, α-L-valine, α-L-isoleucine, α-L-leucine, α-L-methionine, α-L-lysine, or α-L-histidine, or an Nα-substituted form thereof;

aa7 is α-L-tryptophan or α-L-glutamate.

19. (currently amended) The chemical compound or composition according to claim 1 wherein the β-strand-forming section ~~of peptide~~ is preceded by, followed by, or otherwise attached to a distinct membrane-penetrating section ~~of peptide~~ which enables the β-strand-forming section ~~of peptide~~ to cross cell membranes, the blood-brain barrier or any other biological barrier.

20. (currently amended) The chemical compound or composition according to claim 19 wherein the side chain of each residue in the membrane-penetrating section ~~of peptide~~ is selected from the group consisting of:

a basic or hydrophobic group; and a side chain of alanine, valine, leucine, isoleucine, methionine, phenylalanine, tyrosine, tryptophan, proline, histidine, lysine, and arginine.

21. (currently amended) The chemical compound or composition as claimed in claim 19 wherein the membrane-penetrating section ~~of peptide~~ is made resistant to enzyme-catalysed proteolysis by the incorporation of α-D-amino acid residues and/or Nα-substituted amino acid residues.

22. (currently amended) The chemical compound or composition according to claim 1 wherein the β-strand-forming section ~~of peptide~~ has a free or acylated N terminus and a free, amidated, or esterified C terminus, or forms part of a larger peptide which has a free or acylated N terminus and a free, amidated, or esterified C terminus.

23. (currently amended) The chemical compound or composition according to claim 1 wherein the β-strand-forming section ~~of peptide~~ is attached to another functional component.

24. (currently amended) The chemical compound or composition according to claim 23, wherein the functional component is selected from the group consisting of:

a component which strengthens the binding of the β-strand-forming section ~~of peptide~~ to the target β-strand;

a component which enhances specificity of association of the β-strand-forming section ~~of peptide~~ with the target β-strand;

a component which enables the β-strand-forming section ~~of peptide~~ to cross cell membranes, the blood-brain barrier or any other biological barrier;

a component which causes the ~~compound/composition~~ peptide to target specific organs, cells, or molecules;

a component which allows the ~~compound/composition~~ peptide to be traced or detected;

an atom or group that contains a radioactive or magnetically active nucleus;

a fluorescent, colored, or other spectroscopically detectable group;

a group which contains an unpaired electron and thereby acts as a spin label;

a group which contains the 2,2,5,5-tetramethyl-1-pyrrolidinyloxy (PROXYL) group or the 2,2,6,6-tetramethyl-1-piperidinyloxy (TEMPO) group;

a solid matrix, resin, or support;

an enzyme, hormone, antibody, transcription factor, or other protein molecule;

a group that binds specifically to a particular protein; and

a cytotoxic molecule.

25. (currently amended) The chemical compound or composition according to claim 23, wherein attachment of the β-strand-forming section ~~of peptide~~ to the functional component is by means of: an amide or ester linkage formed with the C-terminus of the β-strand-forming section ~~of peptide~~; or an amide linkage formed with the N-terminus of the β-strand-forming section ~~of peptide~~; or an amide linkage formed with a carboxyl or amino group of a side chain within the β-strand-forming section ~~of the peptide~~; or an ester linkage formed with a carboxyl or hydroxyl group of a side chain within the β-strand-forming section ~~of peptide~~; or a disulphide bridge formed with a thiol group of a side chain within the β-strand-forming section ~~of the peptide~~.

26. (currently amended) The chemical compound or composition according to claim 1 wherein the β-strand-forming section ~~of peptide~~ associates with a target β-strand comprising the amino-acid sequence KLVFF (SEQ ID NO:1).

27. (currently amended) The chemical compound or composition according to claim 1 comprising one or more components which mimic the structure and action of said β-strand-forming section ~~of peptide~~, wherein the components are formed by replacing one or more of the backbone peptide groups or side-chain groups of the β-strand-forming section ~~of peptide~~ by another chemical group of similar

stereochemistry and ability to form favorable non-covalent interactions with the target β-strand.

28. (currently amended) The chemical compound or composition according to claim 27 wherein:

(a) one or more of the N-unsubstituted backbone peptide groups (CONH) of the β-strand-forming section ~~of peptide~~ is/are each replaced by any of the following groups: CSNH (thioamide); COO (ester); CSO or COS (thioester); CSS (dithioester); $COCH_2$ (ketone); $CSCH_2$ (thioketone); SO_2NH (sulphonamide); $SOCH_2$ (sulphoxide); SO_2CH_2 (sulphone); SO_2O (sulphonate); and/or

(b) one or more N-substituted backbone peptide groups (CON(R))of the β-strand-forming section ~~of peptide~~ is/are replaced by one of the following N- or C-substituted groups: CSN(R) (thioamide); COCH(R) (ketone); CSCH(R) (thioketone); $SO_2N(R)$ (sulphonamide); SOCH(R) (sulphoxide); $SO_2CH(R)$ (sulphone), wherein R is equivalent to the original Nα substituent; and/or

(c) one or more of the side chains of the β-strand-forming section ~~of peptide~~ is/are each replaced by another group having similar stereochemistry or arrangement of polar and non-polar atoms, maintaining those particular features which are essential for association with the target β-strand.

29 - 42 (cancelled)

43. (previously presented) A pharmaceutical ~~compound or~~ composition according to claim 1.

comprising a peptide

44 - 45 (cancelled)

46. (previously presented) The chemical compound or composition according to claim 1, wherein any two successive Nα-substituted α-L-amino acid residues are separated by an odd number of consecutive Nα-unsubstituted α-L-amino acid residues.

47. (currently amended) A chemical compound or composition comprising a peptide, wherein:

(a) said peptide comprises a β-strand-forming section ~~of peptide~~ consisting of four to sixteen consecutive α-L-amino acid residues and encompassing at least 50% of the length of said peptide, none of the α-L-amino acid residues within the β-strand-forming section ~~of peptide~~ being proline;

(b) each of the consecutive α-L-amino acid residues in the β-strand-forming section ~~of the peptide~~ has a side chain;

(c) said β-strand-forming section ~~of peptide~~ forms a β-strand having a peptide backbone which takes on the form of an extended ribbon having two edges, a first edge which associates with a target β-strand formed by a separate peptide-containing molecule and a second edge, such that the NH and CO components of successive α-L-amino acid residues lie along either the first edge or the second edge of the ribbon, the first edge and second edge corresponding to two opposite edges of the plane of the ribbon, and the side chains of the consecutive α-L-amino acid residues being alternatively above or below the plane of the ribbon ~~peptide planes of the peptide backbone~~;

(d) at least one of the Nα-atoms within the peptide backbone of the β-strand is Nα-substituted with an Nα-substituent, such that one or more Nα-substituent lie along only the second edge and sterically hinder the association of the second edge with another β-strand; and

(e) the first edge remains free of Nα-substituents, and is not prevented from associating with the target β-strand formed by a separate peptide-containing molecule.

REMARKS

In this supplemental Amendment, Applicant has further amended Claims 1 – 28 and 47 to further specify various embodiments of the present invention and overcome the rejection. More specifically, Claim 1 – 28 and 47 have been amended to replace the phrase "a β-strand-forming section of peptide" with the phrase "β-strand-forming section". In addition, Claim 1 has been amended to clearly specify that the "β-strand-forming section" encompasses at least 50% of the length of the peptide. Furthermore, Claim 1 has been amended to clearly define that "the first edge and second edge corresponding to two opposite edges of the plane of the ribbon, and the side chains of the consecutive α-L-amino acid residues being alternatively above or below the plane of the ribbon". The support for the form of extended ribbon can be found on page 7, line 23 to page 8, line 9 of the originally field specification. In addition, the position of the side-chain is supported by the originally filed Figs 3 – 5 and the knowledge of a person of ordinary skill in the art regarding the structure of a beta strand.

Furthermore, a schematic drawing showing a part of the structure of the claimed peptide is enclosed for Examiner's reference.

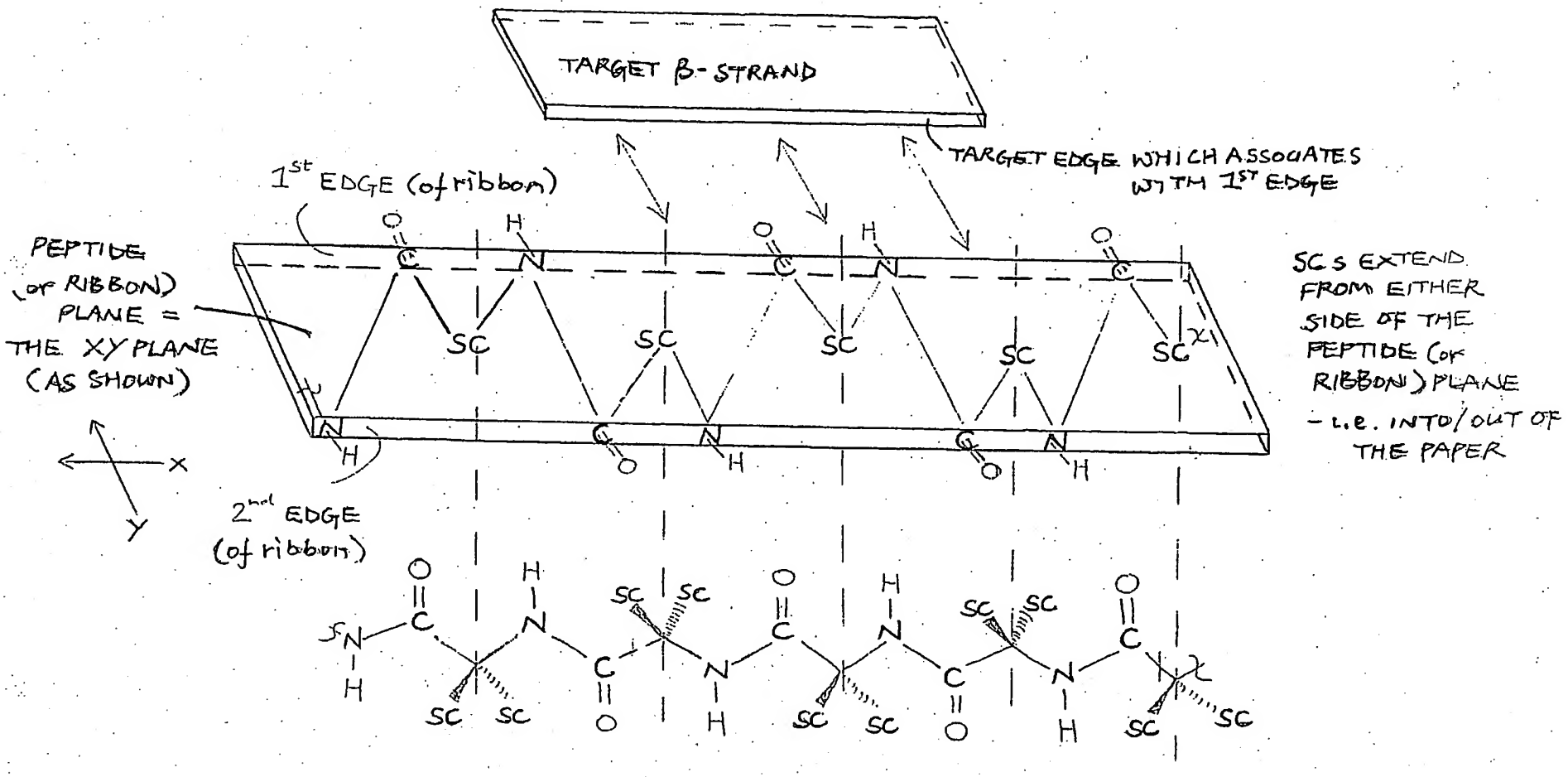
Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By _____ Reg # 26,711 gcs
John C. Holman
Registration No. 22,769

Date: September 12, 2005
(202) 638-6666
400 Seventh Street, N.W.
Washington, D.C. 20004
Atty. Dkt. No.: P67518US0



SC = side chain

42196: Schematic of part (c) of claim 1

Atty Docket No. P67518US0 Today's Date 9-12-2005

Serial/Patent No. 10/030,137

Applicant, Patentee, Assignee STOTT

Filing Date/Patent Date 3-11-02

The following has been received in the U.S. Patent & Trademark Office on the date stamped hereon:

- ☐ _____ pp. Specification & _____ Claims
- ☐ Combined Declaration, Power of Attorney
- ☐ Preliminary Amendment
- ☐ Rule 53 (b) Application
- ☐ Rule 53 (d) /RCE Application
- ☐ Claim to Priority and Certified Copy
- ☐ Substitute ☐ Subsequent Declaration
- ☐ Maintenance Fee
- ☐ Drawings ____ Sheets ____ Formal ____ Informal
- ☐ Assignment/Change of Name
- ☐ Small Entity Declaration
  - ☐ Check for $ _____
- ☑ Response to Office Action Supplemental
- ☐ Disclosure Statement-IDS
- ☐ Copies of References
- ☐ Request for Refund
- ☐ Request for Corrected Filing Receipt
- ☐ Petition for XOT
- ☐ Notice of Appeal/Brief
- ☐ Sequence Listing
- ☐ Issue Fee Transmittal
- ☑ Other Schematic Drawing

JH 11/01 DUE DATE _____

Person filing JCH/JCC

JACOBSON HOLMAN PLLC
400 SEVENTH STREET, N.W.
WASHINGTON, D.C. 20004

EXT/USER/DEPT DETAIL

01-Feb-06 23:34

From 01/01/2006 To 01/31/2006

Location: Main

Ext	Date	User	Department	Time	Length	Number Dialed	Cost	City / State
2483								
2483	01/03/06	CHEN JIWEN	ATTORNEY	19:30	0:00:42	1(703) 920-8575	$0.00	WASZ 8, VA
2483	01/04/06	CHEN JIWEN	ATTORNEY	12:09	0:05:32	1(703) 308-9140	$0.00	WASZ 8, VA
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2483	01/06/06	CHEN JIWEN	ATTORNEY	14:46	0:01:30	1(202) 994-6261	$0.00	WASZ 1, DC
2483	01/06/06	CHEN JIWEN	ATTORNEY	19:15	0:00:21	1(703) 920-8575	$0.00	WASZ 8, VA
2483	01/09/06	CHEN JIWEN	ATTORNEY	13:02	0:00:28	1(571) 272-6994	$0.00	NPA SUMMRY, VA
2483	01/09/06	CHEN JIWEN	ATTORNEY	13:17	0:02:00	1(571) 272-6998	$0.00	NPA SUMMRY, VA
2483	01/10/06	CHEN JIWEN	ATTORNEY	18:54	0:01:27	1(703) 920-8575	$0.00	WASZ 8, VA
2483	01/11/06	CHEN JIWEN	ATTORNEY	19:09	0:00:38	1(202) 783-5454	$0.00	WASZ 1, DC
2483	01/11/06	CHEN JIWEN	ATTORNEY	14:26	0:01:03	1(571) 272-2963	$0.00	NPA SUMMRY, VA
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2483	01/24/06	CHEN JIWEN	ATTORNEY	15:22	0:02:14	1(571) 272-1319	$0.00	NPA SUMMRY, VA
2483	01/25/06	CHEN JIWEN	ATTORNEY	17:31	0:21:50	1(800) 241-6522	$0.00	NPA SUMMRY, VA
2483	01/25/06	CHEN JIWEN	ATTORNEY	10:39	0:00:09	1(571) 272-0949	$0.00	
2483	01/25/06	CHEN JIWEN	ATTORNEY	11:03	0:02:12	1(571) 272-0949	$0.00	NPA SUMMRY, VA
2483	01/25/06	CHEN JIWEN	ATTORNEY	17:40	0:01:18	1(202) 236-2053	$0.00	NPA SUMMRY, VA
								WASZ 1, DC

JACOBSON HOLMAN PLLC
EXHIBIT 3

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

00136 7590 12/01/2005

JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,137	03/11/2002	Kelvin Stott	P67518USO	8173

TITLE OF INVENTION: PEPTIDES CONTAINING N-SUBSTITUTED L-AMINO ACIDS FOR PREVENTING BETA-STRAND ASSOCIATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$700	$0	$700	03/01/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
LIU, SAMUEL W	1653	514-012000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 JACOBSON HOLMAN PLLC
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: SENEXIS LIMITED
(B) RESIDENCE: (CITY and STATE OR COUNTRY): Manchester, ENGLAND

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:
☒ Issue Fee (700)
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):
☐ A check in the amount of the fee(s) is enclosed.
☒ Payment by credit card. Form PTO-2038 is attached. (700)
☒ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 06-1358 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)
☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date 28 February 2006

Typed or printed name John C. Holman Registration No. 22,769

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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JH Ref 1398/P675/8US0 Today's Date 28 FEB 06

Serial/Patent No. 10/030,137

Applicant, Patentee, Assignee STOTT

Filing Date/Patent Date

The following has been received in the U.S. Patent & Trademark Office on the date stamped hereon:

- ☐ ____ pp. Specification & ____ Claims
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- ☐ Maintenance Fee
- ☐ Drawings ____ Sheets ____ Formal ____ Informal
- ☐ Assignment/Change of Name
- ☐ Small Entity Declaration
- ☐ ~~Check~~ for $ 700 - Credit Card
- ☐ Response to Office Action
- ☐ Disclosure Statement-IDS
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- ☐ Request for Refund
- ☐ Request for Corrected Filing Receipt
- ☐ Petition for XOT
- ☐ Notice of Appeal/Brief
- ☐ Sequence Listing
- ☐ Issue Fee Transmittal
- ☐ Other ____

JH 11/01

DUE DATE 1 MAR 06

Person filing

JACOBSON HOLMAN PLLC
400 SEVENTH STREET, N.W.
WASHINGTON, D.C. 20004

OIPE IAP40 FEB 28 2006 PATENT & TRADEMARK OFFICE

OIPE IAP56 MAY 25 2006 PATENT & TRADEMARK OFFICE

JACOBSON HOLMAN
PLLC
EXHIBIT 4

MEMO

To: File

From: Jiwen Chen (JC)

Date: May 22, 2006

Re: Application S/N 10/030,137 (P67518US0)

JC called the Examiner Samuel W. LIU (571-272-0949) on May 17, 2006 and pointed out that the Notice of Abandonment mailed May 11, 2006 should be withdrawn because the request for correction of drawing was wrong and the Examiner previously agreed that the correction was not required. The Examiner indicated that he recognized the previous telephone conversation and that the request for correction of drawing was wrong. The Examiner promised to call back after talking to his supervisor.

The Examiner called back on May 22, 2006 and indicated that he recognizes that the request for correction of drawing was wrong and the correction of the drawing filed on September 12, 2005 was not required. According to the Examiner, the application is currently "out of hand" of the Examiner and he recommenced that the applicant immediately files a petition to withdraw holding of abandonment. In addition, the Examiner asked JC to call him if there is further problem in this application.